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10/020,909	12/19/2001	Abdus Samad Kudrolli	KSIPL-2	1482

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EXAMINER

RUTLEDGE, AMELIA L

ART UNIT

PAPER NUMBER

2176

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/020,909	Applicant(s) KUDROLLI ET AL.	
	Examiner Amelia Rutledge	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications: Amendment, filed 11/13/2006, pursuant to the telephone interview of 10/25/2006.
2. Claims 1-28 are pending in the case. Claims 1, 17, 22, and 25 are independent claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 17-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Harada et al. (hereinafter "Harada"), U.S. Patent No. 6,246,442, issued June 2001.**

Regarding independent claim 17, Harada teaches a computer executable method of displaying a broadcasting program guide table of columns and rows forming cells, to optimally display information selected by a user, determining an optimum cell size and cell layout, and the degree of detail of information (Abstract; Col. 6, l. 14-65). Harada teaches determining the display space requirements (DSR) for displaying the information elements within the cells (Fig. 52, Fig. 56; Col. 8, l. 13-31). Harada teaches moderating the DSR of an element to determine the moderated DSR value by reducing

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the value of the element such that the amount of reduction depends on the difference between the DSR value of the element and a value representative of the DSR values of the elements corresponding to the column or row to which the element corresponds, since Harada teaches determining the optimum size of a cell and adjusting the size of adjacent cells (Fig. 56; Col. 56, l. 46-Col. 57, l. 29) as well as reducing the font size of text elements to an optimum size (Col. 27, l. 35-Col. 28, l. 48). Similarly, Harada teaches displaying the elements in the space allocated to the corresponding cells.

Harada teaches determining the optimum distribution of elements across columns and across rows, i.e., the X and Y axis; and allocating cell widths based on the X or Y axis restrictive condition, i.e. row heights or column widths, respectively (Col. 61, l. 32-Col. 62, l. 64), compare to *measuring the lopsidedness of distribution of larger elements across columns and across rows*; and correspondingly allocating column widths or row heights. Harada teaches allocating column widths and row heights based on the ModDSR values such that the table size does not exceed the width and height of the predetermined display space (Col. 64, l. 9-38; Claim 1). Further, it is inherent in the disclosure of Harada that the table size of the program guide would be calculated not to exceed the width and height of the screen, since the table cell elements are compacted to show the maximum possible amount of program guide elements (Col. 16, l. 1-39, especially l. 33-39).

Regarding dependent claims 8 and 19, Harada teaches moderating the DSR of an element to determine the moderated DSR value by reducing the value of the

element such that the amount of reduction depends on the difference between the DSR value of the element and a value representative of the DSR values of the elements corresponding to the column or row to which the element corresponds, since Harada teaches determining the optimum size of a cell and adjusting the size of adjacent cells (Fig. 56; Col. 56, l. 46-Col. 57, l. 29) as well as reducing the font size of text elements to an optimum size (Col. 27, l. 35-Col. 28, l. 48). Harada teaches allocating column widths and row heights based on the ModDSR values such that the table size does not exceed the width and height of the predetermined display space (Col. 64, l. 9-38; Claim 1).

Regarding dependent claims 20 and 21, Harada teaches determining the optimum distribution of elements across columns and across rows, i.e., the X and Y axis; and allocating cell widths based on the X or Y axis restrictive condition, i.e. the higher of row heights or column widths, respectively (Col. 61, l. 32-Col. 62, l. 64).

Regarding independent claim 22, Harada teaches a computer executable method of displaying a broadcasting program guide table of columns and rows forming cells, to optimally display information selected by a user, determining an optimum cell size and cell layout, and the degree of detail of information (Abstract; Col. 6, l. 14-65). Harada teaches determining the display space requirements (DSR) for displaying the information elements within the cells (Fig. 52, Fig. 56; Col. 8, l. 13-31). Harada teaches moderating the DSR of an element to determine the moderated DSR value by reducing

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the value of the element such that the amount of reduction depends on the difference between the DSR value of the element and a value representative of the DSR values of the elements corresponding to the column or row to which the element corresponds, since Harada teaches determining the optimum size of a cell and adjusting the size of adjacent cells (Fig. 56; Col. 56, l. 46-Col. 57, l. 29) as well as reducing the font size of text elements to an optimum size (Col. 27, l. 35-Col. 28, l. 48). Similarly, Harada teaches displaying the elements in the space allocated to the corresponding cells. Harada teaches allocating column widths and row heights based on the ModDSR values such that the table size does not exceed the width and height of the predetermined display space (Col. 64, l. 9-38; Claim 1). Further, it is inherent in the disclosure of Harada that the table size of the program guide would be calculated not to exceed the width and height of the screen, since the table cell elements are compacted to show the maximum possible amount of program guide elements (Col. 16, l. 1-39, especially l. 33-39).

Regarding dependent claim 23, Harada teaches determining the optimum size of a cell and adjusting the size of adjacent cells (Fig. 56; Col. 56, l. 46-Col. 57, l. 29) as well as reducing the font size of text elements to an optimum size (Col. 27, l. 35-Col. 28, l. 48). Similarly, Harada teaches displaying the elements in the space allocated to the corresponding cells. Harada teaches allocating column widths and row heights based on the ModDSR values such that the table size does not exceed the width and height of the predetermined display space (Col. 64, l. 9-38; Claim 1). Further, it is inherent in the

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disclosure of Harada that the table size of the program guide would be calculated not to exceed the width and height of the screen, since the table cell elements are compacted to show the maximum possible amount of program guide elements (Col. 16, l. 1-39, especially l. 33-39).

Regarding dependent claim 24, Harada teaches using a background color to make up for loss of alignment of cells across columns or rows, as when icons are substituted for text and program genre groups (Col. 22, l. 37 -Col. 23, l. 20).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-16 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada in view of Shin et al. (hereinafter "Shin"), U.S. Patent No. 5,808,914, issued September 1998.**

Regarding independent claim 1 and dependent claims 27 and 28, Harada teaches a computer executable method of displaying a broadcasting program guide table of columns and rows forming cells, to optimally display information selected by a user, determining an optimum cell size and cell layout, and the degree of detail of

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information (Abstract; Col. 6, I. 14-65). Harada teaches determining the display space requirements (DSR) for displaying the information elements within the cells (Fig. 52, Fig. 56; Col. 8, I. 13-31). Harada teaches displaying the elements in the space allocated to the corresponding cells. Harada teaches allocating column widths and row heights based on the ModDSR values such that the table size does not exceed the width and height of the predetermined display space (Col. 64, I. 9-38; Claim 1). Further, it is inherent in the disclosure of Harada that the table size of the program guide would be calculated not to exceed the width and height of the screen, since the table cell elements are compacted to show the maximum possible amount of program guide elements (Col. 16, I. 1-39, especially I. 33-39).

While Harada does not explicitly teach moderating the DSR value of at least one element to determine its moderated display space requirement (ModDSR) value, wherein said moderating step comprises selecting an element whose DSR value is larger than the DSR value of at least one element in the column or row to which said element corresponds, and reducing the DSR value of the selected element such that the amount of reduction depends on the difference between the DSR value of said element and a value representative of the DSR values of the elements corresponding to the column or row to which said element corresponds, because Harada does not provide the exact algorithm used to optimize the display space. Harada does suggest these limitations, since Harada teaches determining the optimum size of a cell and adjusting the size of adjacent cells (Fig. 56; Col. 56, I. 46-Col. 57, I. 29) as well as reducing the font size of text elements to an optimum size (Col. 27, I. 35-Col. 28, I. 48).

Shin is relied upon to disclose moderating the DSR value of at least one element to determine its moderated display space requirement (ModDSR) value (Fig. 8, 9, col. 10, l. 37-col. 11, l. 32), wherein said moderating step comprises selecting an element whose DSR value is larger than the DSR value of at least one element in the column or row to which said element corresponds (col. 5, l. 50-col. 6, l. 32), and reducing the DSR value of the selected element such that the amount of reduction depends on the difference between the DSR value of said element and a value representative of the DSR values of the elements corresponding to the column or row to which said element corresponds (col. 19, l. 45-col. 23, l. 40; col. 26, l. 6-22; col. 38, l. 37-54; col. 45, l. 30-50; claims 1 and 10). Specifically, Shin teaches applying a linear equation and a section constraint condition for setting the height and width of a table cell, row, and column (Abstract); effectively reducing the DSR value of the selected element such that the amount of reduction depends on the difference between the DSR value of said element and a value representative of the DSR values of the elements corresponding to the column or row to which said element corresponds.

Both Shin and Harada are directed toward optimizing table layout for cells containing varying sizes of data. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the table layout method disclosed by Shin to the broadcasting program guide table display disclosed by Harada, so that Harada would have the benefit of a method of automatically laying out the table and the text within each cell so that lines of text would be automatically adjusted (Shin, col. 6, l. 46-64).

Regarding dependent claim 2, Harada teaches measuring text of a uniform font size, permitted minimum font size, and measuring text using a uniform font size for each group of elements required to be displayed using a common font size (Col. 27, l. 35-Col. 28, l. 48).

Regarding dependent claim 3, Harada teaches determining the DSR of text elements after abbreviating the text (Col. 26, l. 30-67).

Regarding dependent claim 4, Harada teaches at least (d) any representative value derived from the DSR values of one or more elements corresponding to the column or row, respectively, since Harada teaches reducing the font size of text elements to an optimum size (Col. 27, l. 35-Col. 28, l. 48) for a group of cells.

Regarding dependent claim 5, Harada teaches determining a measure of the space wastage inherent to a matrix format display, since Harada teaches determining the optimum size of a cell and adjusting the size of adjacent cells (Fig. 56; Col. 56, l. 46-Col. 57, l. 29) as well as reducing the font size of text elements to an optimum size (Col. 27, l. 35-Col. 28, l. 48). Similarly, Harada teaches displaying the elements in the space allocated to the corresponding cells. Harada teaches allocating column widths and row heights based on the ModDSR values such that the table size does not exceed the width and height of the predetermined display space (Col. 64, l. 9-38; Claim 1).

Regarding dependent claim 6, Harada teaches determining the optimum size of a cell and adjusting the size of adjacent cells (Fig. 56; Col. 56, l. 46-Col. 57, l. 29).

Regarding dependent claims 7 and 8, Harada teaches determining the optimum distribution of elements across columns and across rows, i.e., the X and Y axis; and allocating cell widths based on the X or Y axis restrictive condition, i.e. row heights or column widths, respectively (Col. 61, l. 32-Col. 62, l. 64).

Regarding dependent claim 9, Harada teaches measuring text of a uniform font size, and measuring text using a uniform font size for each group of elements required to be displayed using a common font size (Col. 27, l. 35-Col. 28, l. 48).

Regarding dependent claim 10, Harada teaches determining the DSR of text elements after abbreviating the text (Col. 26, l. 30-67).

Regarding dependent claims 11 and 12, Harada teaches determining the display space requirements (DSR) for displaying the information elements within the cells (Fig. 52, Fig. 56; Col. 8, l. 13-31), to determine an optimal display size, the minimum space required to display the maximum amount of information elements in tabular format. Harada teaches calculating DSR with regard to user preferences

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relating to degree of information detail, i.e., acceptable extent of text abbreviation (col. 57, l. 36-50).

Regarding dependent claim 13, Harada teaches an embodiment where elements of the table include images, instead of text strings, and the images include reduced size icons to reduce their DSR (Col. 24, l. 29-63).

Regarding dependent claim 14, Harada teaches that a variety of different images may be used in the guide cells (Col. 37, l. 1-15). It is inherent in the disclosure of Harada that the proportion of reduction would be less for a smaller image and more for a larger image, since Harada teaches the use of both icons, with small degree of reduction (Fig. 33), and representative pictures of broadcasting programs, which would have a larger degree of reduction so as to be able to fit within the tabular display.

Regarding dependent claim 15, Harada teaches determining the optimum size of a cell and adjusting the size of adjacent cells to be smaller so that they will not overlap the larger cell containing more information (Fig. 56; Col. 56, l. 46-Col. 57, l. 29; especially l. 9-28).

Regarding dependent claim 16, Harada teaches a printer functioning as the output unit (Col. 66, l. 21).

Regarding independent claim 25, claim 25 reflects the system used for implementing the method as claimed in claim 1, and is rejected along the same rationale.

Regarding dependent claim 26, Harada teaches specifying text of a uniform font size, permitted minimum font size, and measuring text using a uniform font size for each group of elements required to be displayed using a common font size (Col. 27, l. 35-Col. 28, l. 48).

Response to Arguments

7. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection. The new grounds of rejection includes the Shin patent, which is being relied upon to teach the newly claimed limitation:

(b) moderating the DSR value of at least one element to determine its moderated display space requirement (ModDSR) value, wherein said moderating step comprises:

(i) selecting an element whose DSR value is larger than the DSR value of at least one element in the column or row to which said element correspond; and

(ii) reducing the DSR value of the selected element such that the amount of reduction depends on the difference between the DSR value of said element and a value representative of the DSR values of the elements corresponding to the column or row to which said element corresponds; (Claim 1).

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Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Anderson, et al., "The Table Layout Problem", SCG '99 Miami Beach Florida, copyright ACM 1999 1-58113-068-6/99/06, p. 115-123.

Badros, et al., "Constraint Cascading Style Sheets for the Web", Technical Report UP CSE 99-05-01, published May 1999, Revised August 3, 1999, p. 1-10.

Bos, et al., "Cascading Style Sheets, level 2", W3C Proposed Recommendation published March 1998, W3C, available at <http://www.w3.org/TR/1998/PR-CSS2-19980324>; table of contents, p. 1-10; Sect. 8, p. 1-12; Sect. 10, p. 1-11; Sect. 18, p. 1-26.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amelia Rutledge whose telephone number is 571-272-7508. The examiner can normally be reached on Monday - Friday 9:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR



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